F.H.W.A. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD			

PROJECT DESCRIPTION

I. General

This portion of the project involves the modification of the existing intersection control beacon (ICB) at the intersection of MD 152 (Magnolia Road) at Trimble Road in Harford County, Maryland. Modifications at this intersection include converting the existing ICB to a full color operation traffic signal. MD 152 is assumed to run in a north-south direction.

II. Intersection Operation

This intersection shall operate in a NEMA (Fully Actuated) five (5) phase operation with the northbound and southbound MD 152 operating in a fixed time mode. The Eastbound and Westbound approaches of Trimble Road shall operate concurrently.

III. Special Notes

1.) Maintenance of traffic will be handled by the contractor utilizing the following standard plates for traffic control: 104. 01, 104.107, 105.00, 105.03, 105.101, 105.110, 107.707

2.) The traffic signal will be turned off and the intersection will be controlled by a police officer during the change over of controller cabinets.

3.) The following are SHA District 4 Contact persons:

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division (410) 787-7630

Mr. Dave Malkowski
District Engineer
(410) 321-3461

Mr. Darrell Wiles
Asst. District Engineer - Traffic
(410) 321-3514

Mr. Russell Yurek
Asst. District Engineer - Maintenance
(410) 321 3468

Mr. Joseph McMahon
Asst. District Engineer- Utility
(410) 321-3456

Equipment List

A. Equipment to be supplied by the Administration.

ITEM NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
9001	7	EA	814	12 in. one way, three section (R,Y,G) signal head - mast arm mount
9002	1	EA	814	12 in. one way, five section(R,Y,G,YA,GA) signal head - mast arm mount
9003	72	SF	813	Sheet aluminum signs consisting of:
		4	EA	Guide Shield Assembly (30 in. x 51 in.)
		2	EA	W3-3 New Signal Ahead (36 in. x 36 in.) - ground mounted
		1	EA	R10--12 - "Left Turn Yield on Green" (42" x 36")
9003	1	EA	816	Full actuated 8 phase controller with intersection moniter mounted in pole mounted size 5 cabinet.
9004	2	EA		Four channel loop detector amplifier
9005	4	EA		Microloop Probe Set with 500 ft. of lead-in cable.

Equipment List

B. Equipment to be furnished and/or installed by the contractor.

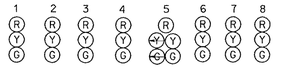
ITEM NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
1001	1	EA	104	Maintenance of traffic per assignment
5005	85	LF	555	24 in. white permanent preformed pavement marking tape
8011	8	EA	814	Install signal head - any type
8015	4	EA	SP	Install mircoloop probe set
8018	1	EA	816	Install controller and cabinet - pole mount
8022	670	LF	815	Furnish and install saw cut for signals (loop detector)
8024	60	LF	805	Furnish and install 1 in. liquid tight flexible, non-metallic conduit for detector wire sleeve PVC conduit - trenched.
8025	800	LF	805	Furnish and install 2 in. schedule 40 rigid PVC conduit - trenched.
8028	15	LF	805	Furnish and install 3 in. schedule 40 rigid
8030	85	LF	805	Furnish and install 3 in. schedule 80 rigid PVC conduit - bored.
8035	6	EA	811	Furnish and install electric handhole
8037	1	EA	804	Furnish and install ground rod (3/4 in. x 10 ft.)
8043	1000	LF	810	Furnish and install loop wire encased in flexible tubing (No. 14 AWG)
8044	25	LF	810	Furnish and install electrical cable 2 - conductor (aluminum shielded)
8047	80	LF	810	Furnish and install electrical cable 5 - conductor (No. 14 AWG)
8048	220	LF	810	Furnish and install electrical cable 7 - conductor (No. 14 AWG)
8052	20	LF	810	Furnish and install electrical cable - 1-conductor No. 6 AWG - stranded bare copper ground wire
8053	60	LF	810	Furnish and install electrical cable No. 4 AWG - THHN/THWN copper
8055	40	LF	812	Install wood sign supports 4 in. x 6 in.
8056	61	SF	813	Install ground mounted sign
8057	11	SF	813	Install overhead mounted sign

Equipment List (con't.)

B. Equipment to be furnished and/or installed by the contractor.

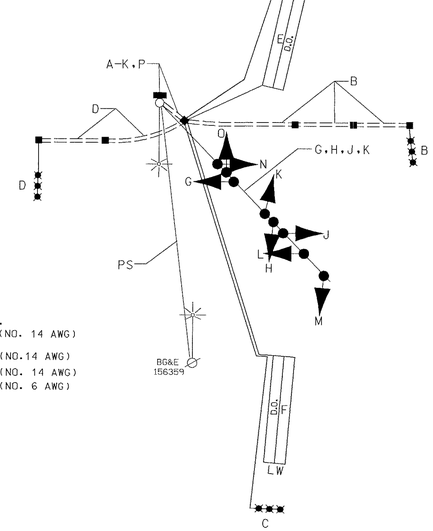
ITEM NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
8062	1	EA		Removal of existing traffic signal equipment to be salvaged consting of:
		4		12 in. one way, one section(Y) signal head - mast arm mount
		4		12 in. one way, one section(R) signal head - mast arm mount
		1		Two circuit flasher and cabinet - pole mount
8076	1	EA	807	Control and distribution equipment.

PHASING SEQUENCE CHART



	1	2	3	4	5	6	7	8	
Phase 2 & 6	G	G	G	G	R	R	R	R	←
2 & 6 Change	Y	Y	Y	Y	R	R	R	R	→
Phase 3	R	R	R	R	-G\G	G	R	R	↑
Phase 3 Clear	R	R	R	R	-Y\G	G	R	R	↑
Phase 4 & 8	R	R	R	R	G	G	G	G	↓
4 & 8 Change	R	R	R	R	Y	Y	Y	Y	↓
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	↕ ↔

WIRING DIAGRAM



WIRING KEY

A-D - MICROLOOP PROBE LEAD-IN CABLE.
E-F - 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) ALUMINUM SHIELDED.
G,H,J,K - 7 CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
L-O - 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
P - 1 CONDUCTOR ELECTRICAL CABLE (NO. 6 AWG) BARE STRANDED COPPER
LW - LOOP WIRE.
PS - EXISTING POWER SERVICE FEED.

REVISIONS	APPROVALS
A SHA NO. PENDING 7-8-96 UPGRADE F.C.B. TO FULL COLOR TRAFFIC SIGNAL. DMP DCL	ASST. DIV. CHIEF, SIGNAL DESIGN SECTION ASST. DISTRICT ENGINEER, TRAFFIC CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION DEPUTY CHIEF ENGINEER, OFFICE OF TRAFFIC ORIGINAL SIGNED ON FILE

DCL CONSULTING ENGINEERS COLUMBIA, MARYLAND

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

ORIGINAL DRAWN BY: DERRICK DICKERSON
DES. BY: DERRICK DICKERSON
CHK. BY:

MD 152 @ TRIMBLE ROAD
GENERAL INFORMATION SHEET

LOG MILE #: 1201520.98 COUNTY: HARFORD

DATE: 5/90 F.A.P. NO. STPG-0005(493)E
SCALE: NTS S.H.A. NO.

TS/FILE NO. 2639 GI

SHEET NO. 2 OF 3

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